REMARKS

Claims 1-4, 6-10, 21, 22, 25, and 28-30, all the claims pending in the application, stand rejected on prior art grounds. Claims 5, 23, 24, 26, and 27 are canceled, above. Applicants respectfully traverse these rejections based on the following discussion.

I. The Prior Art Rejections

Claims 1, 6, 7, 8, 10, 21, 22, 25, 28, and 29 stand rejected under 35 U.S.C. §102(b) as being anticipated by Lessig (DE 198 03605). Claims 1-4, 8, and 10 stand rejected under 35 U.S.C. §102(e) as being anticipated by Kawashima et al. (US PG-Pub. No. 2002/0101324) hereinafter "Kawashima". Claims 2-4, 9 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lessig (DE 198 03605) in view of Clinton et al. (US Patent No. 6,055,150) hereinafter "Clinton". Applicants respectfully traverse these rejections based on the following discussion.

A. The Rejection Based on Lessig

Lessig appears to show a structure that includes a fuse wire 3 extending above an element body 1 in Figures 1A and 1B. However, the fuse wire 3 appears to be a completely separate element from the projecting structures 4 in Figures 1A and 1B of Lessig. This is contrary to the claimed invention wherein the "inverse U-shaped fuse . . . comprises a continuous conductive element" (independent claims 1, 8, and 25).

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More specifically, as shown in Applicants' Figures 1, 5, and 6, and as explained in paragraph 25 of the application, the inventive fuse has an inverse-U-shape, a portion of which extends from the insulator. By utilizing a continuous conductive element, the fuse structure can be made in a single damascene process which allows the fuse to be thinner and made in a more reliable, faster process (damascene processing).

To the contrary, because the structure in Lessig appears to made from multiple elements, multiple processing steps would have to occur to make each of the different elements. Further, if the elements were not lined up properly, they may not make proper contact, resulting in defects. Therefore, the claimed structure would have a higher yield, be more reliable, and be made in a more streamlined process than the structure disclosed in Lessig.

Therefore, since Lessig discloses a multi-part structure and the claimed invention comprises an "inverse U-shaped fuse . . . comprises a continuous conductive element" as defined by independent claims 1, 8, and 25, Lessig does not anticipate the invention as defined by independent claims 1, 8, and 25 and such claims are patentable. Further, dependent claims 6. 7, 10, 21, 22, 28, and 29 are similarly patentable, not only virtue of their dependency from a patentable independent claim, but also by virtue of the additional features of the invention they define. In view the forgoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

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B. The Rejection Based on Kawashima

Kawashima shows a structure that includes a fuse element 17 extending above a base 11 in Figures 1A and 4. However, the fuse element 17 is a completely separate element from the electrodes 13 in Figures 1A and 4 of Kawashima. This is contrary to the claimed invention wherein the "inverse U-shaped fuse . . . comprises a continuous conductive element" (independent claims 1 and 8).

More specifically, Kawashima explicitly states that the fuse element 17 is separate from the electrodes 13 and explains that the fuse element is soldered or welded to the electrodes 13 (paragraph 29). This is fundamentally different than the claimed structure. As shown in Applicants' Figures 1, 5, and 6, and as explained in paragraph 25 of the application, the inventive fuse has an inverse-U-shape, a portion of which extends from the insulator. By utilizing a continuous conductive element, the fuse structure can be made in a single damascene process which allows the fuse to be thinner and made in a more reliable, faster process (damascene processing).

To the contrary, because the structure in Kawashima is made from multiple elements, multiple processing steps would have to occur to make each of the different elements and to solder the elements together. Further, if the elements were not lined up properly, they may not make proper contact, resulting in defects. Therefore, the claimed structure would have a higher yield, be more reliable, and be made in a more streamlined process than the structure disclosed in Kawashima.

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Therefore, since Kawashima discloses a multi-part structure and the claimed invention comprises an "inverse U-shaped fuse . . . comprises a continuous conductive element" as defined by independent claims 1 and 8, Kawashima does not anticipate the invention as defined by independent claims 1 and 8 and such claims are patentable. Further, dependent claims 2-4 and 10 are similarly patentable, not only virtue of their dependency from a patentable independent claim, but also by virtue of the additional features of the invention they define. In view the forgoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

C. The Rejection Based on Lessig and Clinton

Clinton is referenced for showing an electroplated fuse element. However, Applicants submit that Clinton is not properly combinable with Lessig because Clinton requires that the fuse element be positioned within the insulator and the teachings regarding electroplating fuse elements would be irrelevant to the claimed invention and Lessig which include external fuse elements. Clinton requires that the "fuses 50 are positioned in hollow cavities in the insulator 30" (Abstract, lines 8-10). Therefore, Clinton explicitly requires that the fuse element be positioned within the insulator 30. The invention is fundamentally different than the structure shown in Clinton that has the fuse positioned external to the insulator.

Therefore, Applicants respectfully traverse this rejection on the basis that a prima facia case of obviousness has not been set forth because the applied references are not properly combinable since the teachings are essentially unrelated (one relates to fuses that

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are external to the device while another relates to a fuse positioned within the device). Since this rejection is defective, Applicants respectfully request that it be withdrawn and that dependent claims 2-4, 9 and 30 be passed to issue.

III. Formal Matters and Conclusion

With respect to the objection to the claims, claim 27 has been cancelled, above, thereby rendering the objection thereto moot. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the objection to the claims.

In view of the foregoing, Applicants submit that claims 1-4, 6-10, 21, 22, 25, and 28-30, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

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Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0458.

Respectfully submitted,

Dated: 4/15/03

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